

## VERSION 2

### UNITED STATES SPECIAL OPERATIONS COMMAND 22.1 Small Business Innovation Research (SBIR) Phase I Proposal Submission Instructions

#### Introduction:

The United States Special Operations Command (USSOCOM) seeks small businesses with strong research and development capabilities to pursue and commercialize technologies needed by Special Operations Forces through the Department of Defense (DoD) SBIR 22.1 Program Broad Agency Announcement (BAA). A thorough reading of the “Department of Defense Small Business Innovation Research (SBIR) Program, SBIR 22.1 Program Broad Agency Announcement (BAA)” prior to reading these USSOCOM instructions is highly recommended. These USSOCOM instructions explain certain unique aspects of the USSOCOM SBIR Program that differ from the DoD Announcement and its instructions. The Offeror is responsible for ensuring that their proposal complies with the requirements in the most current version of these instructions. Prior to submitting your proposal, please review the latest version of these instructions as they are subject to change before the submission deadline.

**Table 1: Consolidated SBIR Topic Information**

Topic	Technical Volume (Vol 2)	Additional Info. (Vol 5)	Period of Performance	Award Amount	Contract Type
<i>Phase I</i> SOCOM221-001	Not to exceed 5 pages	15-page PowerPoint	Not to exceed 6 months	NTE \$150,000.00	Firm-Fixed-Price

#### Contract Awards:

SBIR awards for topic SOCOM221-001 may be made under the authority of National Defense Authorization Act for Fiscal Year 2020, Section 851, PILOT PROGRAM FOR DEVELOPMENT OF TECHNOLOGY-ENHANCED CAPABILITIES WITH PARTNERSHIP INTERMEDIARIES. USSOCOM may use a partnership intermediary to award SBIR contracts and agreements to small business concerns. SOCOM213-003 SBIR contract awards may be done through SOFWERX and result in a commercial contract between the firm and DEFENSEWERX. The Government will evaluate and select for award all SOCOM221-001 proposals.

#### Proposal Submission:

The Defense SBIR/STTR Innovation Portal (DSIP) is the official portal for DoD SBIR/STTR proposal submission. Proposers are required to submit proposals via DSIP; proposals submitted by any other means will be disregarded. Detailed instructions regarding registration and proposal submission via DSIP are provided in the DoD SBIR Program BAA.

**Proposal Documents Titles:** We have encountered issues while downloading proposals due to lengthy file names. The contractor shall not use more than 50 characters to include spaces in any of the proposal documents titles.

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**Proposal Volumes:** Proposal Volumes are key in the qualification of the proposal. Offerors shall complete each of the following volumes. Those volume are (1) Cover Page, (2) Technical Volume, (3) Cost Volume, (4) Company Commercialization Report, (5) Pitch Day Presentation, and (6) Fraud, Waste and Abuse Training.

**Volume 1:** Cover Page is created as part of the DoD Proposal Submissions process.

### **Volume 2: Technical Volume**

The technical volume is **not to exceed 5 pages** and recommended to follow the formatting requirements provided in the DoD SBIR Program BAA

The identification of foreign national involvement in a USSOCOM SBIR topic is needed to determine if a firm is ineligible for award on a USSOCOM topic that falls within the parameters of the United States Munitions List, Part 121 of the International Traffic in Arms Regulation (ITAR). A firm employing a foreign national(s) (as defined section titled "Foreign Nationals" of the DoD SBIR 22.1 Announcement) to work on a USSOCOM ITAR topic must possess an export license to receive a SBIR Phase I contract.

### **Volume 3: Cost Volume**

Companies submitting a Phase I proposal under this BAA must complete the USSOCOM Phase I Cost excel spreadsheet, with a base **not to exceed \$150,000.00**.

A minimum of two-thirds of the research and/or analytical work in Phase I must be conducted by the proposing firm. The percentage of work is measured by both direct and indirect costs as a percentage of the total contract cost.

### **Volume 4: Company Commercialization Report (CCR)**

Completion of the CCR as Volume 4 of the proposal submission in DSIP is required. Please refer to the DoD SBIR Program BAA for full details on this requirement. Information contained in the CCR will be considered by USSOCOM during proposal evaluations.

### **Volume 5: Supporting Documents (Pitch Day Presentation and Section K)**

In addition to the documentation outlined in the DoD SBIR Program BAA, the following must also be included with Volume 5 consists of three documents: (1) the Pitch Day presentation and (2) Section K.

(1) Pitch Day Presentation: Potential Offerors shall submit a slide deck **not to exceed 15 PowerPoint slides (inclusive of the cover sheet)**. There is no set format for this document. It is recommended (but not required) that more detailed information is included in the technical volume and higher-level information is included in the slide deck suitable for the 30 minutes presenting. Refer to the "Phase I Evaluations" Section of this instruction for more details.

(2) Section K: If Section K is not submitted with the proposal, the proposal will not be considered non-responsive, but, the completed Section K shall be required at the time of award.

(3) Resumes: Include resumes as required.

### **Volume 6: Fraud, Waste and Abuse Training**

Fraud, Waste and Abuse (FWA) training is required for Phase I and Direct to Phase II proposals. Please refer to the DoD 22.1 SBIR BAA for full details.

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### **Phase I proposals shall NOT include:**

- 1) Any travel for Government meetings. All meetings with the Government will be conducted via electronic media.
- 2) Government furnished property or equipment.
- 3) Priced or Unpriced Options.
- 4) A Technical Volume exceeding five pages. USSOCOM will only evaluate the first five pages of the Technical Volume. Additional pages will not be considered or evaluated.
- 5) "Basic Research" (or "Fundamental Research") defined as a "Systematic study directed toward greater knowledge or understanding of the fundamental aspects of phenomena and/or observable facts without specific applications toward processes or products in mind."
- 6) Human or animal studies.
- 7) Discretionary Technical and Business Assistance

### **Technical Inquiries:**

During the Pre-release and Open periods of the DoD SBIR 22.1 Program BAA, all questions must be submitted to the online Defense SBIR/STTR Innovation Portal (DSIP) Topic Q&A. All questions and answers submitted to DSIP Topic Q&A will be released to the general public. USSOCOM does not allow inquirers to talk directly or communicate in any other manner to the topic authors (differs from the DoD SBIR 22.1 Program BAA instructions).

***Site visits will not be permitted during the Pre-release and Open Periods of the DoD SBIR 22.1 Program BAA.***

### **Phase I Evaluations:**

All proposals will be evaluated in accordance with the evaluation criteria listed in the DoD SBIR Program BAA with the following exceptions:

1. Proposals missing any of the six stated volumes or does not comply with the 2/3<sup>rd</sup> rule will not be evaluated. Likewise, proposals that exceed the maximum price allowed as per Table 1 of these instructions will be considered to be non-responsive.
2. The technical evaluation will utilize the Evaluation Criteria provided in DoD SBIR 22.1 BAA. The Technical Volume and slide deck will be reviewed holistically. The technical evaluation is performed in two parts:

Part I: The evaluation of the Technical Volume will utilize the Evaluation Criteria provided of the DoD SBIR 22.1 BAA. Once the evaluations are complete, all Offerors will be notified as to whether they were selected to present the slide deck portion of their proposal.

Part II: Selected Offerors **may** receive an invitation to present their slide deck (30 minute presentation time / 30 minute Government question and answer period) to the USSOCOM technical evaluation team, using virtual teleconference. This will be a technical presentation only of the proposed solution and the key personnel listed in the proposal should be conducting the presentation and responding to the questions of the evaluation team. This presentation is NOT intended for business development personnel, it is purely technical. Selected Offerors shall

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restrict their Pitch Day presentations to only the 15-page PowerPoint presentations that were submitted with their respective proposals. There will be no changes or updates to the presentations from what was proposed. All selected firms will be required to provide teleconference information for the presentation. This presentation will complete the evaluation of the proposal the panel did against the criteria listed in the DoD SBIR 22.1 BAA. Notifications of selection/non-selection for Phase I award will be completed within a timely manner.

3. The Cost Volume (Volume 3) evaluation:

For this Phase I, the award amount is set at a not to exceed (NTE) amount and a technical evaluation of the proposal cost will be completed to assess price fair and reasonableness. Proposals above the established NTE for the Phase I effort will not be considered for award. The team will assess the technical approach presented for the effort based on the number of labor hours by labor categories, the key personnel level of involvement, materials, subcontractors and consultants (scope of work, expertise, participation and proposed effort), and other direct cost as proposed.

Additionally, input on technical aspects of the proposals may be solicited by USSOCOM from non-Government consultants and advisors who are bound by appropriate non-disclosure requirements. Non-Government personnel will not establish final assessments of risk, rate, or rank Offeror's proposals. These advisors are expressly prohibited from competing for USSOCOM SBIR awards. All administrative support contractors, consultants, and advisors having access to any proprietary data will certify that they will not disclose any information pertaining to this announcement, including any submission, the identity of any submitters, or any other information relative to this announcement; and shall certify that they have no financial interest in any submission. Submissions and information received in response to this announcement constitutes the Offeror's permission to disclose that information to administrative support contractors and non-Government consultants and advisors.

### **Selection Notifications:**

For topic SOCOM221-001, the Defensewerx (also known as SOFWERX) may notify each Offeror whether they have been selected for award. Otherwise, the notifications will be sent out by the Government Contracting Officer. The e-mail notification will be sent to the Corporate Official (Business) identified by the Offeror.

### **Informal Feedback:**

A non-selected Offeror can make a written request to their respective contracting officer within 30 calendar days of receipt of notification of non-selection, for informal feedback. The respective Contracting Officer will provide informal feedback in response to an Offeror's written request rather than a debriefing as specified in the DoD SBIR 22.1 Announcement.

### **Protest Procedures**

Refer to the DoD SBIR Program Announcement for procedures to protest the Announcement.

As further prescribed in FAR 33.106(b), FAR 52.233-3, Protests after Award should be submitted to the Contracting Officer (KO) from which the notice was generated and sent from.

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### **USSOCOM SBIR Program Point of Contact:**

Inquiries concerning the USSOCOM SBIR Program and these proposal preparation instructions should be addressed to [sbir@socom.mil](mailto:sbir@socom.mil).

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### USSOCOM SBIR 22.1 Phase I Topic Index

SOCOM221-001	Low SWaP Tactical Ultra-Secure Communications System
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TITLE: Low SWaP Tactical Ultra-Secure Communications System.

TECHNOLOGY FOCUS AREAS: Network Command, Control and Communications

TECHNOLOGY AREAS: Sensors; Electronics

The technology within this topic is restricted under the International Traffic in Arms Regulation (ITAR), which controls the export and import of defense-related material and services. Offerors must disclose any proposed use of foreign nationals, their country of origin, and what tasks each would accomplish in the statement of work in accordance with section 5.4.c.(8) of the solicitation. Additionally, Offerors will describe compliance mechanisms offerors have in place or will put in place to address any ITAR issues that arise during the course of agreement administration.

OBJECTIVE: In the face of a rising near-peer threat to electronic communications, USSOCOM is looking for advances in ultra-secure communications systems, including Low Probability of Detection (LPD) / Low Probability of Intercept (LPI) features at the tactical level. Tactical teams are increasingly burdened with large Size, Weight, and Power (SWaP) footprints but still require secure communications. The objective of this topic is to develop applied research toward an innovative capability to develop low SWaP Tactical Ultra-secure Communication Systems to allow operators to communicate safely in modern contested environments.

### DESCRIPTION:

As a part of this feasibility study, the proposers shall address all viable overall system design options with a focus on developing a means of ultra-secure communications for the purpose of providing operators a low SWaP system to communicate safely in modern contested environments. The resultant solution must consider that the prime purpose of the system is to provide high bandwidth (>1Gbps) and reliable communications at the secure level while on the move. The communications system shall include at a minimum point to point terrestrial communication at a range of 3 miles and SATCOM communications. The feasibility study should consider various methods and techniques of LPD and LPI (including frequency agility, frequency aggregation; simultaneous bands; wide band, etc.) or features to accomplish secure communication while maintaining low SWaP. Low SWaP is considered < 500 grams with battery and antennas included. Proposers shall consider frequency coverage in the microwave and millimeter bands. If other bands are determined to be advantageous by the proposers, they should provide supporting information and will be assessed for their potential capability to enhance operator communication versatility while maintaining LPI/LPD.

PHASE I: Conduct a feasibility study to assess what is in the art of the possible that satisfies the requirements specified in the above paragraphs entitled "Objective" and "Description."

The objective of this USSOCOM Phase I SBIR effort is to conduct and document the results of a thorough feasibility study ("Technology Readiness Level 3") to investigate what is in the art of the possible within the given trade space that will satisfy a needed technology. The feasibility study should investigate all options that meet or exceed the minimum performance parameters specified in this write up. It should also address the risks and potential payoffs of the innovative technology options that are investigated and recommend the option that best achieves the objective of this technology pursuit. The funds obligated on the resulting Phase I SBIR contracts are to be used for the sole purpose of conducting a thorough feasibility

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study using scientific experiments and laboratory studies as necessary. Operational prototypes will not be developed with USSOCOM SBIR funds during Phase I feasibility studies. Operational prototypes developed with other than SBIR funds that are provided at the end of Phase I feasibility studies will not be considered in deciding what firm(s) will be selected for Phase II.

PHASE II: Develop, install, and demonstrate a prototype system determined to be the most feasible solution during the Phase I feasibility study on a Low Size, Weight, and Power (SWaP) Tactical Ultra-Secure Communications System.

PHASE III DUAL USE APPLICATIONS: This system could be used in a broad range of military applications where secure communications are required.

### REFERENCES:

1. Department of Defense Instruction (DoDI) 8523.01 Communications Security (COMSEC)

<https://safe.menlosecurity.com/doc/docview/viewer/docN2184A57DE9A63a334b4f908c8ad7307002d8d209aa9726dc4a60cad75dddcf141ec11f087cb7>

2. DoD Information Security Program: Protection of Classified Information 5200.01, Volume 3

[https://www.dodig.mil/Portals/48/Documents/Policy/520001\\_vol3.pdf](https://www.dodig.mil/Portals/48/Documents/Policy/520001_vol3.pdf)

KEYWORDS: Low Probability of Intercept; Low Probability of Detection; SATCOM; satellite communications; ultra-secure communications